

Claim Listing:

1. (Currently amended) Multiple-stage drilling tool with a chip groove for drilling different bit diameters as required, wherein said diameters increase successively from stage to stage, characterised by a first bit stage (1-1) being a core bit, and at least one second bit stage (1-2, 1-3) arranged above it in the form of a step, where a hole can be drilled by said core bit leaving an uncut cylinder-shaped drilling core.

2. (Currently amended) Arrangement in accordance with claim 1, characterised in that all the bit stages (1-1, 1-2, 1-3) have at least one common chip groove (~~S1, S2, S3, S4, S5~~).

3. (Previously amended) Arrangement in accordance with claim 2, characterised in that said chip groove has an even or an arched base.

4. (Previously amended) Arrangement in accordance with claim 2, characterised in that said chip groove has flanks of unequal height.

5. (Previously amended) Arrangement in accordance with claim 3, characterised in that said chip groove has flanks of unequal height.

6. (Previously amended) Arrangement in accordance with claim 2, characterised in that a groove base is included and that said chip groove has at least one flank, and that at least one flank of said chip groove is vertical or diagonal to said groove base.

7. (Previously amended) Arrangement in accordance with claim 3, characterised in said chip groove has at least one flank and that a groove base is included, and that said at

least one flank of said chip groove is vertical or diagonal to said groove base.

8. (Previously amended) Arrangement in accordance with claim 4, characterised in that a groove base is included and that at least one flank of said chip groove is vertical or diagonal to said groove base.

9. (Previously amended) Arrangement in accordance with claim 2, characterised in that said chip groove has at least one flank and that said at least one groove flank is rounded.

10. (Previously amended) Arrangement in accordance with claim 3, characterised in that said chip groove has at least one flank and that said at least one groove flank is rounded.

11. (Original) Arrangement in accordance with claim 4, characterised in that at least one groove flank is rounded.

12. (Currently amended) Arrangement in accordance with claim 1, characterised in that all the bit stages (1-1, 1-2, 1-3) have at least one common chip groove ~~includes~~ include a path and that said path of said chip groove on said multiple-stage drilling tool, with said increasing diameter of successive bit stages, runs in an imaginary cone with virtually the same groove depth.

13. (Previously amended) Arrangement in accordance with claim 2, characterised in that said chip groove includes a path and said path of said chip groove on said multiple-stage drilling tool, with said increasing diameter of successive bit stages, runs in

an imaginary cone with virtually the same groove depth.

14. (Previously amended) Arrangement in accordance with claim 3, characterised in that said chip groove includes a path and said path of said chip groove on said multiple-stage drilling tool, with said increasing diameter of successive bit stages, runs in an imaginary cone with virtually the same groove depth.

15. (Previously amended) Arrangement in accordance with claim 2, characterised in that said chip groove is spiral-shaped or straight.

16. (Previously amended) Arrangement in accordance with claim 3, characterised in that said chip groove is spiral-shaped or straight.

17. (Previously amended) Arrangement in accordance with claim 15, characterised in that said chip groove of each bit stage is a spiral-groove segment smaller than a quarter of a full spiral turn.

18. (Previously amended) Arrangement in accordance with claim 16, characterised in that said chip groove of each bit stage is a spiral-groove segment smaller than a quarter of a full spiral turn.

19. (Previously amended) Arrangement in accordance with claim 1, characterised in that said core bit of the first bit stage has cutters running continuously from the inside to the outside.

20. (Currently amended) Arrangement in accordance with claim 1, characterised in that said core bit of said first bit stage (1-1) has inner cutters (C11) and outer cutters

(Ca1), said core bit includes heels, said core bit includes a plurality of chip grooves (S1, S2, S3, S4 and S5), said outer cutters (Ca1) are located adjacent said heels (F1 to F5) and said plurality of chip grooves (S1 to S5), and said core bit has U-shaped notches (E) between two heels (F1 to F5), and an inner cutter (Ci1) is assigned to each notch (E).

21. (Cancelled)

22. (Previously amended) Arrangement in accordance with claim 20, characterised in that each of said outer cutters includes a clearance angle and that said clearance angle (fa1) of each of said outer cutters of said core bit is between 6 and 15 degrees.

23. (Previously amended) Arrangement in accordance with claim 1, characterised in that from the second bit stage (1-2, 1-3) onwards, each bit stage has at least one outer cutter (Ca2, Ca3) having a clearance angle (fa2) and said clearance angle (fa2) is less than or equal to 10 degrees.

24. (Previously amended) Arrangement in accordance with claim 23, characterised in that said clearance angle (fa2) of all the outer cutters (Ca2) from the second bit stage (1-2) onwards are equal.

25. (Previously amended) Arrangement in accordance with claim 23, characterised in that said outer cutter (Ca2) from the second bit stage (1-2) is at an angle (s3) of between 0 and 45 degrees to an imaginary horizontal plane.

26. (Previously amended) Arrangement in accordance with claim 20, characterised in that, said inner cutters include a clearance angle and that each said clearance angle of

each said inner cutter is between 5 and 10 degrees.